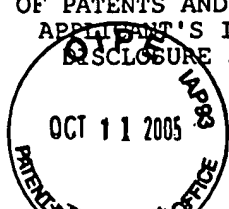


FORM PTO-1449	Atty. Docket No.: U11.12-0161	Appl. No.: 10/801,940
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT 	First Named Inventor:	
	Kang-Hyun Baek	
	Filing Date	Group Art:
	March 16, 2004	2873

## U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
JA						
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## FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
JH						

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>Bwt</i>	JI	"Notification of Transmittal of the International Search Report and the Written Opinion of the International Search Authority for PCT/US2005/007569.
	JJ	
	JK	
	JL	
	JM	
	JN	
	JO	
	JP	
	JQ	


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*B. Healy*

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## FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
IH						

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

II	"High-Resolution Particle Separation by Sedimentation Field-Flow Fractionation", by F. Yang et al., JOURNAL OF COLLOID AND INTERFACE SCIENCE, Vol. 60, No. 3, July 1, 1977, pgs. 574-577.
IJ	"Synthetic Opals Made by the Langmuir-Blodgett Method", by M. Bardosova et al., PREPARATION AND CHARACTERIZATION, ELSEVIER SEQUOIA, NL, Vol. 437, No. 1-2, August 1, 2003, pgs. 276-279.
IK	"A Three-Dimensional Optical Photonic Crystal", by S. Lin et al., JOURNAL OF LIGHTWAVE TECHNOLOGY, Vol. 17, No. 11, November 1999, pgs. 1944-1947.
IL	"Invitation to Pay Additional Fees/Communication Relating to the Results of the Partial International Search for PCT/US2005/007569.
IM	
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EA						

## FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
EB						

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>But</i>	EC	S. Noda, K. Tomoda, N. Yamamoto, A. Chutinan, "Full three-dimensional photonic bandgap crystals at near-infrared wavelengths", <i>Science</i> , vol. 289, pp. 604-606, Jul., 2000.
<i>But</i>	ED	Y.A. Vlasov, X.-Z. Bo, J.C. Sturm, D.J. Norris, "On-chip natural assembly of silicon photonic bandgap crystals", <i>Nature</i> , vol. 414, pp. 289-293, Nov., 2001.
<i>But</i>	EE	G.H. Bogush, M.A. Tracy, C.F. Zukoski IV, "Preparation of monodisperse silica particles: Control of size and mass fraction", <i>J. Non-Crystalline Solids</i> , vol. 104, pp. 95-106, 1988.
<i>But</i>	EF	S.L. Chen, P. Dong, G.-H. Yang, J.-J. Yang, "Characteristic aspects of formation of new particles during the growth of monosize silica seeds", <i>Journal of Colloid and Interface Science</i> , vol. 180, pp. 237-241, 1996.
<i>But</i>	EG	W. Stober, A. Fink, E. Bohn, "Controlled growth of monodisperse silica spheres in the micron size range", <i>J. Colloid and Interf. Sci.</i> , vol. 26, pp. 62-69, 1968.
<i>But</i>	EH	D.W. McComb, B.M. Treble, C.J. Smith, R.M. De La Rue and N. P. Johnson, "Synthesis and characterization of photonic crystals", <i>J. Mater. Chem.</i> , vol. 11, pp. 142-148, 2001.
<i>But</i>	EI	P. Ni, P. Dong, B. Cheng, X. Li, D. Zhang, "Synthetic SiO <sub>2</sub> opals", <i>Adv. Mater.</i> vol. 13, pp. 437-441, Mar. 2001.
<i>But</i>	EJ	P. Jiang, J.F. Bertone, K.S. Hwang, V.L. Colvin, "Single-crystal colloidal multilayers of controlled thickness", <i>Chem. Mater.</i> , vol. 11, pp. 2132-2140, 1999.
<i>But</i>	EK	C.F. Blanford, R.C. Schroden, M. Al-Daous, A. Stein, "Tuning solvent-dependent color changes of three-dimensionally ordered macroporous (3DOM) materials through compositional and geometric modifications", <i>Adv. Mater.</i> , vol. 13, pp. 26-29, Jan., 2001.

EXAMINER:

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FA						

## FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
FB						

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>But</i>	FC	E. Yablonovich, Inhibited spontaneous emission in solid state physics and electronics, Phys. Rev. Lett., Vol. 58, pp. 2059-2062, 1987.
<i>But</i>	FD	O. Painter, J. Vuckovic, A. Yariv, A. Scherer, J. D. O'Brien, P. D. Dapkus, Two dimensional photonic band gap defect mode laser, Science, Vol. 284, pp. 1819-1821, 1999.
<i>But</i>	FE	E. R. Brown, O. B. McMahon, High zenithal directivity from a dipole antenna on a photonic crystal, Appl. Phys. Lett., vol. 68, pp. 1300-1302, 1996.
<i>But</i>	FF	B. Temelkuran, M. Bayindir, E. Ozbay, R. Biswas, M. M. Sigalas, G. Tuttle, K. M. Ho, Photonic crystal-based resonant antenna with a very high directivity, J. Appl. Phys., Vol. 87, pp. 603-605, 2000.
<i>But</i>	FG	J. G. Fleming, S-Y. Lin, Three dimensional photonic crystal with a stop band from 1.35 to 1.95 $\mu$ m, Optics Lett., vol. 24, pp. 49-51, 1999.
<i>But</i>	FH	Special Section on Electromagnetic Crystal Structures, Design, Synthesis, and Applications, Journal of Lightwave Technology, Vol. 17, pp. 1944-1947, 1999.
<i>But</i>	FI	Special issue of Advance Materials, Vol. 13, no 6, pg. 369, 2001.
<i>But</i>	FJ	Special Feature Section on Photonic Crystal Structures and applications, IEEE J. Quantum Electronics, Vol 38, July 2002. Dimensional photonic
<i>But</i>	FK	S. John, K. Busch, Photonic bandgap formation and tunability in certain self organizing systems, Journal of Lightwave Technology, vol. 17, pp. 1931-1943, 1999.
<i>But</i>	FL	E. Palacios-Lidon, A. Blanco, M. Ibasate, F. Mesequer, C. Lopez, J. Sanchez-Dehesa, Optical study of the full photonic band gap in silicon inverse opals, Appl. Phys. Lett., Vol. 81, no. 21, pp. 4925-4927, 2002.

EXAMINER:

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GA						

## FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
GB						

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>Burt</i>	GC	B. T. Holland, C. F. Blanford, A. Stein, Synthesis of Highly Ordered Three-Dimensional Mineral Honeycombs with Macropores, Science, Vol. 281, pp. 538-540, 1998.
<i>Burt</i>	GD	H. Yan, C. F. Blandford, B. T. Holland, W. H. Smyrl, A. Stein, General Synthesis of Periodic Macro-porous Solids by Templated Salt Precipitation and Chemical Conversion, Chem. Mater., Vol.12, pp. 1134-1141, 2000.
<i>Burt</i>	GE	J. E. G. J. Wijnhoven, W. L. Vos, Preparation of photonic crystals made of air spheres in Titania, Science, Vol. 281, pp. 802-804, 1998.
<i>Burt</i>	GF	D. J. Norris, Y. A. Vlasov, Chemical Approaches to Three-Dimensional Semiconductor Photonic Crystals, Advanced Materials, Vol. 13, Issue 6, pp. 371-376, 2001.
<i>Burt</i>	GG	F. J. P. Schuurmans, D. Vanmaekelbergh, J. van de Lagemaat, A. Lagendijk, Strongly Photonic Macroporous Gallium Phosphide Networks." Science Vol. 284, pp.141-143, 1999.
<i>Burt</i>	GH	Y. Matsui, M. Ishino, T. Fujita, H. Serizawa, T. Kajiura, A novel measurement technique of loss and facet reflectivity for semiconductor optical waveguides, SPIE Vol. 651, Integrated Optical Circuit Engineering III, 1986.
<i>Burt</i>	GI	S. G. Johnson, J. D. Joannopoulos, Block iterative frequency domain method for Maxwell's equations in a plane wave basis, Opt. Express, Vol. 8, 173-190, 2001.
<i>Burt</i>	GJ	P. M. Bell, J. M. Pendry, I. Martin-Moreno, A. J. Ward, A program for calculating photonic band structures and transmission coefficients of complex structures, comput. Phys. commun., Vol. 85, pp. 306-322, 1995.
<i>Burt</i>	GK	K. R. Williams, R. S. Muller, Etch rates for micromachining processing, J. Microelectromechanical Systems, Vol. 5, pp. 256 -269, 1996.

EXAMINER:

*A. Healy*

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## U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
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## FOREIGN PATENT DOCUMENTS

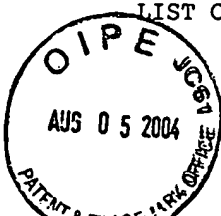
	Document No.	Date	Country	Class	Sub Class	Translation Yes No
HB						

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

SM	HC	"Photonic Band Engineering in Opals by Growth of Si/Ge Multilayer Shells", by F. Garcia-Santamaria et al., Adv. Mater. 2003, 15, No. 10, pgs. 788-792.
Ant	HD	"Tuning the Properties of Photonic Films from Polymer Beads by Chemistry", by M. Egen et al., Chem. Mater: 2002, 14, pgs. 2176-2183.
Burt	HE	"Synthesis and Characterization of Monodisperse Core-Shell Colloidal Spheres of Zinc Sulfide and Silica", by K. Velikov et al., Langmuir 2001, 17, pgs. 4779-4786.
	HF	
	HG	
	HH	
	HI	
	HJ	
	HK	
	HL	
	HM	
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EXAMINER: <i>R. Healy</i>	DATE CONSIDERED: <i>12/02/05</i>
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	Filing Date	Group Art:
	March 16, 2004	2873

## U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
<i>BMT</i>	AA 2001/0019037	7/2001	Zakhidov et al.	216	56	
<i>BMT</i>	AB 2002/0024163	2/2002	Fu et al.	264	42	
<i>QML</i>	AC 2002/0045030	4/2002	Ozin et al.	428	173	
<i>BMT</i>	AD 2002/0062782	5/2002	Norris et al.	117	3	
<i>BMT</i>	AE 2002/0126713	9/2002	Ibanescu et al.	372	6	
<i>QML</i>	AF 2002/0164137	11/2002	Johnson et al.	385	125	
<i>BMT</i>	AG 2002/0173610	11/2002	Aert et al.	526	303.1	
<i>BMT</i>	AH 2002/0176676	11/2002	Johnson et al.	385	125	
<i>BMT</i>	AI 2002/0189947	12/2002	Paul et al.	204	461	
<i>BMT</i>	AJ 2002/0195344	12/2002	Neyer et al.	204	600	
<i>BMT</i>	AK 2003/0008771	1/2003	Fu et al.	502	159	
<i>BMT</i>	AL 2003/0012657	1/2003	Marr et al.	417	48	
<i>BMT</i>	AM 2003/0020399	1/2003	Moller et al.	313	504	
<i>BMT</i>	AN 2003/0021518	1/2003	Smirnov et al.	385	15	
<i>BMT</i>	AO 2004/0013379	1/2004	Johnson et al.	385	125	
<i>BMT</i>	AP 2004/0020423	2/2004	Lewis, III et al.	117	8	
<i>BMT</i>	AQ 2003/0031407	2/2003	Weisberg et al.	385	28	
<i>BMT</i>	AR 2003/0063426	4/2003	Smirnov et al.	361	159	

## FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
AS						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AT	
EXAMINER: <i>B. Healy</i>	DATE CONSIDERED: <i>12/02/05</i>

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BA	2003/0103721	6/2003	Padmanabhan et al.	385	24	
BB	2003/0136946	7/2003	Kumacheva	252	500	
BC	2003/0143081	7/2003	Rakestraw et al.	417	48	
BD	2003/0148088	8/2003	Padmanabhan et al.	428	304.4	
BE	2003/0156319	8/2003	John et al.	359	341.5	
BF	2003/0185505	10/2003	Weisberg et al.	385	28	
BG	2003/0206806	11/2003	Paul et al.	417	48	
BH	2004/0017834	1/2004	Sundar et al.	372	39	
BI	6,139,626	10/2000	Norris et al.	117	68	
BJ	6,228,340	5/2001	Imhof et al.	423	338	
BK	6,261,469	7/20001	Zakhidov et al.	216	56	
BL	6,414,043	7/2002	Asher et al.	521	61	
BM	6,436,187	8/2002	Patel et al.	117	68	
BN	6,517,763	2/2003	Zakhidov et al.	264	344	
BO	6,555,945	4/2003	Baughman et al.	310	300	
BP	6,563,981	5/2003	Weisberg et al.	385	28	
BQ	6,589,629	7/2003	Bao et al.	428	144	
BR	6,625,364	9/2003	Johnson et al.	385	127	

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BS						

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BT	
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Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
BMB	CA	6,680,013	1/2004	Stein et al.	264	44
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## FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
BMB	CD	1 247 820 A1	10/2002	EPO	385	122X	X
BMB	CE	1 081 513 A1	3/2001	EPO	385	122X	X
BMB	CF	WO 99/01766	1/1999	WIPO	385	122X	X
BMB	CG	WO 99/47570	9/1999	WIPO	385	122X	X
BMB	CH	WO 00/21905	4/2000	WIPO	385	122X	X
BMB	CI	WO 00/50771	8/2000	WIPO	385	122X	X
BMB	CJ	WO 01/18283 A1	3/2001	WIPO	385	122X	X
BMB	CK	WO 01/55484 A2	8/2001	WIPO	385	122X	X
BMB	CL	WO 01/62830 A2	8/2001	WIPO	385	122X	X
BMB	CM	WO 01/66833 A1	9/2001	WIPO	385	122X	X
BMB	CN	WO 01/96635 A2	12/2001	WIPO	385	122X	X
BMB	CO	WO 01/86038 A2	11/2001	WIPO	385	122X	X
BMB	CP	WO 02/059656 A2	8/2002	WIPO	385	122X	X
BMB	CQ	WO 02/059663 A1	8/2002	WIPO	385	122X	X
BMB	CR	WO 02/061467 A2	8/2002	WIPO	385	122X	X
BMB	CS	WO 02/091028 A2	11/2002	WIPO	385	122X	X

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

CT	
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## FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
Sub	DE	WO 02/33461 A2	4/2002	WIPO	385	122X	X
Sub	DF	WO 02/44301 A2	6/2002	WIPO	385	122X	X
Sub	DG	WO 02/101474 A2	12/2002	WIPO	385	122X	X
Sub	DH	WO 03/007663 A1	1/2003	WIPO	385	122X	X
Sub	DI	WO 04/009724 A2	1/2004	WIPO	385	122X	X
Sub	DJ	WO 04/013383 A1	2/2004	WIPO	385	122X	X
	DK						
	DL						
	DM						
	DN						

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

Sub	DO	"Optical coupling between monocrystalline colloidal crystals and a planar waveguide", by Y. Zhao et al., <u>APPLIED PHYSICS LETTERS</u> , Vol. 75, No. 23, pgs. 3596-3598, (6 December 1999).
Sub	DP	"Two-dimensional colloidal crystal corrugated waveguides", by Y. Zhao et al., <u>OPTICS LETTERS</u> , Vol. 24, No. 12, pgs. 817-819, (June 15, 1999).
Sub	DQ	"Optical Demultiplexing in a Planar Waveguide with Colloidal Crystal", by I. Avrutsky et al., <u>IEEE PHOTONICS TECHNOLOGY LETTERS</u> , Vol. 12, No. 12, pgs. 1647-1649, (12 December 2000).

EXAMINER:

B. Kelly

DATE CONSIDERED:

12/2/05

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